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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,113	06/27/2001	Ji Zhang	CISCP214	6264

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EXAMINER

PHILIPPE, GIMS S

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/894,113	Applicant(s) ZHANG ET AL.	
	Examiner Gims S. Philippe	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. The new ground of rejections is rendered necessary in view of a newly found reference during an updated search. The examiner apologizes for the inconvenience, which that may cause the Applicant because of the previously indicated allowable claims.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-20, and 23-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukuda (US Patent no. 6549667).

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Regarding claims 1, 11, and 24, Fukuda discloses an apparatus and method for performing an inverse transform on a block of transform coefficients, the block having rows and columns (See Fig. 9, an inverse transform configuration, which operates on blocks as shown in Fig. 15), the method comprising:

Identifying zero patterns in the block of transform coefficients to derive zero pattern information, wherein identifying zero pattern comprises determining the location of zero values or near zero values for multiple rows and for multiple columns in the block of transform coefficients (See Fig. 15, location of zero values, which are tracked by control flags A and B in Figs. 16A-B); and performing one-dimensional inverse transform on a subset of the total number of rows and columns in the block of transform coefficients by using zero pattern information (See col. 10, line 18-38).

As per claims 2, 8, 10, 12, 18, 20, 25, 31 and 33, the encoding disclosed in as noted in col. 1, lines 26-67, is an MPEG encoding.

As per claims 7, 17, 23, transcoding is suggested in Fukuda's col. 15, lines 23-64.

As per claims 3, 13, 26, 30, most of the limitations of these claims have been noted in the above rejection if claim 1. In addition, Fukuda further discloses the method wherein performing one-dimensional inverse transforms comprises performing one-dimensional transforms on a subset of the total number of columns in the block of transform coefficients (See Fukuda col. 10, lines 18-38).

As per claims 4, 14, and 27, Fukuda further discloses the same method wherein performing one-dimensional inverse transforms further comprises performing one-dimensional transforms on all the rows in the block of transform coefficients (See col. 10 lines 18-38, and Fig. 15, where it is clear that all of the rows are inverse transformed for at least columns 1 and 7 and part of columns 3 and 6).

As per claim 5, 15, 28, most of the limitations of this claim have been noted in the above rejection if claim 1. In addition, Fukuda further discloses the method wherein performing one-dimensional transforms on a subset of the total number of rows in the block of transform coefficients (See col. 10, lines 18-38, and Fig. 15-16B clearly teaches inverse transforming a subset of some rows, namely rows 1-4 for columns 3 and 6).

As per claims 6, 16, 29, most of the limitations of this claim have been noted in the above rejection if claim 5. In addition, Fukuda further discloses the method wherein performing one-dimensional inverse transforms further comprises performing one-dimensional transforms on all the columns in the block of transform coefficients (Since the data represented in Fig. 15 is merely exemplary of image transformed data, there clearly exists the possibility of having non-zero data in every column, so that in such a case, all columns would be inverse transformed).

As per claims 9, 19, and 32, Fukuda further discloses the same method wherein performing one-dimensional inverse transforms occurs during decoding (See col. 7, from line 60 to col. 8, line 27, and Fig. 9 and 12 are clearly part of the decoding system).

As per claim 11, See the most of the limitations of this claim have been noted in the above rejection if claim 1. In addition, Fukuda further discloses the method provides "processing" hardware and memory in col. 5, lines 12-17, and col. 34, lines 20-42.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 34-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda (US Patent no.6549667).

As per claim 34, most of the limitations of this claim have been noted in the above rejection of claims 1, 11, and 24.

While Fukuda does not specifically disclose a computer readable medium, it proposes a CPU in col. 4, lines 53-67 and col.4, lines 1-5. Therefore, it is considered that one skilled in the art at the time of the invention would recognize the advantage of

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using a computer readable medium along with the CPU for the purpose of providing a portable programs.

As per claims 35, 41 and 43, the encoding disclosed in as noted in col. 1, lines 26-67, is an MPEG encoding.

As per claim 36-37, 39, and 42, most of the limitations of these claims have been noted in the above rejection if claim 34. In addition, Fukuda further discloses the method wherein performing one-dimensional inverse transforms comprises performing one-dimensional transforms on a subset of the total number of columns in the block of transform coefficients (See Fukuda col. 10, lines 18-38).

As per claim 40, transcoding is suggested in Fukuda's col. 15, lines 23-64.

As per claim 38, most of the limitations of this claim have been noted in the above rejection if claim 1. In addition, Fukuda further discloses the method wherein performing one-dimensional transforms on a subset of the total number of rows in the block of transform coefficients (See col. 10, lines 18-38, and Fig. 15-16B clearly teaches inverse transforming a subset of some rows, namely rows 1-4 for columns 3 and 6).

6. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda (US Patent no. 6549667) in view of Lee (US Patent no. 6,763,070).

As per claims 21 and 22, most of the limitations of these claims have been noted in the above rejection of claim 11 .

It is noted that Fukuda is silent about a memory associated with a cable modem headend line card, and wherein the processor is configured to rescale data to meet bandwidth constraints as specified in claims 21 and 22.

Lee discloses an apparatus and method for performing one-dimensional inverse transforms wherein a memory associated with a cable modem headend line card (See Lee col. 14, lines 29-38), and wherein the processor is configured to rescale data to meet bandwidth constraints (See Lee col. 4, lines 25-40).

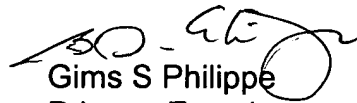
Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying Fukuda's transform operation by providing Lee's cable modem headend line card, and Lee's configuration to rescale data. The motivation for performing such modifications in Fukuda is not only to implement a stand-alone system, but also to be able to use different networks having different bandwidth constraints as taught by Lee.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gims S. Philippe whose telephone number is (571) 272-7336. The examiner can normally be reached on M-F (10:30-7:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dastouri S. Mehrdad can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Gims S Philippe
Primary Examiner
Art Unit 2621

GSP

May 11, 2006